

WHAT IS CLAIMED IS:

1. A polygon mirror comprising a sintered body, wherein the sintered body is formed from a mixed powder containing copper powder as a primary component and has a weight density of about 75% or more in ratio to pure copper.

2. A polygon mirror according to claim 1, wherein the mixed powder contains tin powder in the range of about 7 wt.% to 20 wt.%.

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3. A polygon mirror according to claim 1, wherein the mixed powder contains nickel powder in the range of about 0.1 wt.% to 5 wt.%.

4. A polygon mirror according to claim 1, wherein the weight density of the sintered body is in the range of about 80% to 93% in ratio to pure copper.

15 5. A polygon mirror according to claim 4, wherein the mixed powder contains tin powder in the range of about 7 wt.% to 20 wt.%.

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6. A polygon mirror according to claim 4, wherein the mixed powder contains nickel powder in the range of about 0.1 wt.% to 5 wt.%.

25 7. A polygon mirror according to claim 4, wherein the weight density of the sintered body is about 90% in ratio to pure copper.

8. A polygon mirror according to claim 7, wherein the mixed powder contains about 10 wt.% in a tin powder and about 1.0 wt.% in a nickel powder.

9. A polygon mirror according to claim 1, further comprising a protective film vacuum-vapor deposited on reflective surfaces of the polygon mirror.

5 10. A polygon mirror according to claim 1, wherein reflective surfaces of the polygon mirror have a higher reflective rate for laser light with wavelength of 700 nm or more, compared to that for laser light with wavelength of less than 700 nm.

10 11. A polygon mirror comprising:
a base material;
a cylindrical member formed from a sintered material connected in a unitary structure to an outer circumference of the base material; and
15 a plurality of mirror-finished reflective surfaces provided on polygonal outer circumference surfaces of the cylindrical member;
wherein the sintered material is formed by firing a mixed powder containing copper powder as a primary component and has a weight density of about 75% or more in ratio to pure copper.

20 12. A polygon mirror according to claim 11, wherein the mixed powder contains tin powder in the range of about 7 wt.% to 20 wt.%.

13. A polygon mirror according to claim 11, wherein the mixed powder contains nickel powder in the range of about 0.1 wt.% to 5 wt.%.

25 14. A polygon mirror according to claim 11, wherein the sintered body has a weight density in the range of about 80% to 93% in ratio to pure copper.

15. A polygon mirror according to claim 14, wherein the mixed powder contains tin powder in the range of about 7 wt.% to 20 wt.%.

16. A polygon mirror according to claim 14, further comprising a
5 mixed powder that contains a nickel powder in the range of about 0.1 wt.% to 5 wt.%.

17. A polygon mirror according to claim 14, wherein the weight density of the sintered body is about 90% in ratio to pure copper.

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18. A polygon mirror according to claim 17, wherein the mixed powder contains about 10 wt.% in tin powder and about 1.0 wt.% in nickel powder.

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19. A polygon mirror according to claim 11, wherein the base material is made of ceramic.

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20. A polygon mirror according to claim 11, further comprising a protective film vacuum-vapor deposited on reflective surfaces of the polygon mirror.

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21. A polygon mirror according to claim 11, wherein reflective surfaces of the polygon mirror have a higher reflective rate for laser light with wavelength of 700 nm or more, compared to that for laser light with wavelength of less than 700 nm.